

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the patent application:

1. (currently amended) A method for at least one of encoding and decoding an image, comprising:

- (a) identifying adjacent regions in said image;
- (b) ~~examining~~ identifying coding parameters for said adjacent regions; ~~and~~
- (c) identifying transform coefficients for said adjacent regions;
- (d) identifying DC components and AC components in said transform coefficients; and

(e) selectively filtering at least a portion of ~~the~~ said regions proximate the boundary between said adjacent regions ~~based upon said coding parameters wherein said selectively filtering is based upon a similarity of said DC components and said AC components, wherein identifying D.C. and A.C. components for said adjacent regions and said selectively filtering based upon a similarity of said D.C. and said A.C. components.~~

2. (currently amended) A method for at least one of encoding and decoding an image, said method comprising:

- (a) identifying adjacent regions in said image;
- (b) examining coding parameters for said adjacent regions;
- (c) selectively filtering at least a portion of said regions proximate a boundary between said adjacent regions based upon said coding parameters;

(d) identifying similarities between coding parameters in a luminance channel of said adjacent regions; and

(e) controlling filtering for both the luminance channel and a chrominance channel in said image according to said similarities ~~in the luminance channel~~.

3. (currently amended) A method for at least one of encoding and decoding an image, said method comprising:

(a) identifying adjacent regions in said image;

(b) examining coding parameters for said adjacent regions; and

(c) selectively filtering at least a portion of said regions proximate the a boundary between said adjacent regions based upon ~~said coding parameters, whether at least one of said adjacent regions is intra-coded wherein said selectively filtering is based upon determining whether at least one of said adjacent regions are intra-coded.~~

4. (currently amended) A method for at least one of encoding and decoding an image, comprising:

(a) identifying adjacent regions in said image;

(b) examining coding parameters for said adjacent regions; and

(c) selectively filtering at least a portion of said regions proximate a the boundary between said adjacent regions based upon ~~said coding parameters, wherein said selectively filtering is based upon determining~~ whether at least one of said adjacent regions is encoded with residuals.

5. (currently amended) A method for at least one of encoding and decoding an image, comprising:

- (a) identifying adjacent regions in said image;
- (b) examining coding parameters for said adjacent regions; and
- (c) selectively filtering at least a portion of said regions proximate a boundary

between said adjacent regions ~~based upon said coding parameters, wherein said selectively filtering is based upon determining whether at least two of said adjacent regions are predicted based upon two different reference frames.~~

6. (currently amended) A method for at least one of encoding and decoding an image, comprising:

- (a) identifying adjacent regions in said image;
- (b) examining coding parameters for said adjacent regions; and
- (c) selectively filtering at least a portion of said regions proximate a the

boundary between said adjacent regions ~~based upon said coding parameters, wherein said selectively filtering is based upon determining whether at least two of said adjacent regions have an absolute difference of said motion vectors that has a mathematical relationship to of said at least two adjacent regions at least one of greater than or less than a threshold value.~~

7. (original) The method of claim 6 wherein said absolute difference is in a first direction.

8. (original) The method of claim 7 wherein said absolute difference is also in a second direction different than said first direction.

9. (currently amended) A method for at least one of encoding and decoding an image, comprising:

- (a) identifying adjacent regions in said image;
- (b) examining coding parameters for said adjacent regions; and
- (c) selectively filtering at least a portion of said ~~the~~ regions proximate a boundary between said adjacent regions based upon said coding parameters; and wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded.

10. (currently amended) A method for at least one of encoding and decoding an image, comprising:

- (a) identifying adjacent regions in said image;
- (b) examining coding parameters for said adjacent regions; and
- (c) selectively filtering at least a portion of said regions proximate the boundary between said adjacent regions based upon said coding parameters, wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded and a second filter when ~~said~~ at least one of said adjacent regions is encoded with ~~said~~ residuals.

11. (currently amended) A method for at least one of encoding and decoding an image, comprising:

- (a) identifying adjacent regions in said image;

- (b) examining coding parameters for said adjacent regions; and
- (c) selectively filtering at least a portion of said regions proximate a ~~the~~ boundary between said adjacent regions based upon said coding parameters;
- (d) wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded, a second filter when ~~said~~ at least one of said adjacent regions is encoded with ~~said~~ residuals, and a third filter when ~~said~~ ~~at least two of said~~ adjacent regions are predicted based upon ~~said~~ two different reference frames.

12. (currently amended) A method for at least one of encoding and decoding an image, comprising:

- (a) identifying adjacent regions in said image;
- (b) examining coding parameters for said adjacent regions; and
- (c) selectively filtering at least a portion of said ~~the~~ regions proximate a ~~the~~ boundary between said adjacent regions based upon said coding parameters, wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded, a second filter when ~~said~~ at least one of said adjacent regions is encoded with ~~said~~ residuals, a third filter when ~~said~~ at least two of said adjacent regions are predicted based upon two different reference frames, and said third filter when ~~said~~ at least two of said adjacent regions have an ~~said~~ absolute difference of ~~said~~ motion vectors that falls within a set of values including a threshold value as one extreme of said at least two adjacent regions said at least one of greater than or less than a threshold value.

13. (currently amended) An encoder for encoding an image comprising:

- (a) a first identifier for identifying processor adapted to identify adjacent regions in said image;
- (b) an examiner for said processor examining coding parameters for said adjacent regions; and
- (c) a filter for said processor selectively filtering at least a portion of said the regions proximate a the boundary between said adjacent regions based upon said coding parameters;
- (d) a second identifier for identifying DC and AC components for said adjacent regions; and
- (e) a filter controller for controlling said selectively filtering based upon a similarity of said DC and said AC components, wherein identifying D.C. and A.C. components for said adjacent regions and said selectively filtering based upon a similarity of said D.C. and said A.C. components.

14. (currently amended) An encoder for encoding an image comprising:

- (a) a first identifier for identifying processor adapted to identify adjacent regions in said image;
- (b) an examiner for said processor examining coding parameters for said adjacent regions;
- (c) a filter for said processor selectively filtering at least a portion of said the regions proximate a boundary between said adjacent regions based upon said coding parameters;

- (d) a second identifier for said processor identifying similarities between coding parameters in a luminance channel of said adjacent regions; and
- (e) a filter controller for controlling said filter, wherein said filter is applied to said luminance channel and a chrominance channel based on said similarities. ~~said processor controlling filtering for both the luminance channel in said image according to similarities in the luminance channel.~~

15. (currently amended) An encoder for encoding an image comprising:

- (a) a first identifier for identifying processor adapted to identify adjacent regions in said image;
- (b) an examiner for said processor examining coding parameters for said adjacent regions; and
- (c) a filter for said processor selectively filtering at least a portion of said the regions proximate a boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering is based upon determining whether at least one of said adjacent regions is ~~are~~ intra-coded.

16. (currently amended) An encoder for encoding an image comprising:

- (a) a first identifier for identifying processor adapted to identify adjacent regions in said image;
- (b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a filter for said processor selectively filtering at least a portion of said the regions proximate a the boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering is based upon determining whether at least one of said adjacent regions is encoded with residuals.

17. (currently amended) An encoder for encoding an image comprising:

(a) a first identifier for identifying processor adapted to identify adjacent regions in said image;

(b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a filter for said processor selectively filtering at least a portion of said the regions proximate a boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering is based upon determining whether at least two of said adjacent regions are predicted based upon two different reference frames.

18. (currently amended) An encoder for encoding an image comprising:

(a) a first identifier for identifying processor adapted to identify adjacent regions in said image;

(b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a filter for said processor selectively filtering at least a portion of said the regions proximate a boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering is based upon determining whether at least two of

said adjacent regions have an absolute difference of said motion vectors that is of said at least
~~two adjacent regions at least one~~ of greater than or less than or less than a threshold value.

19. (original) The encoder of claim 18 wherein said absolute difference is also in
a first direction.

20. (original) The encoder of claim 19 wherein said absolute difference is also in
a second direction different than said first direction.

21. (currently amended) An encoder for encoding an image comprising:

(a) a first identifier for identifying ~~a processor adapted to identify~~ adjacent
regions in said image;

(b) an examiner for ~~said processor~~ examining coding parameters for said
adjacent regions; and

(c) at least one filter for ~~said processor~~ selectively filtering at least a portion
of said the regions proximate a the boundary between said adjacent regions based upon said
coding parameters; wherein said selectively filtering uses a first filter when said adjacent
regions are intra-coded.

22. (currently amended) An encoder for encoding an image comprising:

(a) a first identifier for identifying ~~a processor adapted to identify~~ adjacent
regions in said image;

(b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a plurality of filters for said processor selectively filtering at least a portion of ~~said the regions~~ proximate ~~a the~~ boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded and a second filter when ~~said~~ at least one of said adjacent regions is encoded with residuals.

23. (currently amended) An encoder for encoding an image comprising:

(a) a first identifier for identifying processor adapted to identify adjacent regions in said image;

(b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a plurality of filters for said processor selectively filtering at least a portion of ~~said the regions~~ proximate ~~a the~~ boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded, a second filter when ~~said~~ at least one of said adjacent regions is encoded with ~~said~~ residuals, and a third filter when ~~said~~ at least two of said adjacent regions are predicted based upon ~~said~~ two different reference frames.

24. (currently amended) An encoder for encoding an image comprising:

(a) a first identifier for identifying processor adapted to identify adjacent regions in said image;

(b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a plurality of filters for said processor selectively filtering at least a portion of ~~said the regions~~ proximate ~~a the~~ boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded, a second filter when ~~said~~ at least one of said adjacent regions is encoded with ~~said~~ residuals, a third filter when ~~said~~ at least two of said adjacent regions are predicted based upon ~~said~~ two different reference frames, and said third filter when ~~said~~ at least two of said adjacent regions have an said absolute difference of said motion vectors that is of ~~said at least two adjacent regions said at least one of~~ greater than or less than a threshold value.

25. (currently amended) A decoder for encoding an image comprising:

(a) a first identifier for identifying ~~processor adapted to identify~~ adjacent regions in said image;

(b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a filter for said processor selectively filtering at least a portion of said the regions proximate ~~a the~~ boundary between said adjacent regions based upon said coding parameters;

(d) a second identifier for identifying DC and AC components for said adjacent regions; and

(e) a filter controller for controlling said selectively filtering based upon a similarity of said DC and said AC components. ~~wherein identifying D.C. and A.C. components~~

~~for said adjacent regions and said selectively filtering based upon a similarity of said D.C. and said A.C. components.~~

26. (currently amended) An decoder for decoding an image comprising:

- (a) ~~a first identifier for identifying processor adapted to identify~~ adjacent regions in said image;
- (b) ~~an examiner for said processor~~ examining coding parameters for said adjacent regions;
- (c) ~~a filter for said processor~~ selectively filtering at least a portion of said the regions proximate ~~a~~ the boundary between said adjacent regions based upon said coding parameters;
- (d) ~~a second identifier for identifying~~ similarities between coding parameters in a luminance channel of said adjacent regions; and
- (e) a filter controller for controlling said filter, wherein said filter is applied to said luminance channel and a chrominance channel based on said similarities. ~~controlling filtering for both the luminance channel and a chrominance channel in said image according to similarities in the luminance channel.~~

27. (currently amended) A decoder for decoding an image comprising:

- (a) ~~a first identifier for identifying processor adapted to identify~~ adjacent regions in said image;
- (b) ~~an examiner for said processor~~ examining coding parameters for said adjacent regions; and

(c) a filter for said processor selectively filtering at least a portion of said the regions proximate a the boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering is based upon determining whether at least one of said adjacent regions is intra-coded.

28. (currently amended) A decoder for decoding an image comprising:

(a) a first identifier for identifying processor adapted to identify adjacent regions in said image;

(b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a filter for said processor selectively filtering at least a portion of said the regions proximate a the boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering is based upon determining whether at least one of said adjacent regions is encoded with residuals.

29. (currently amended) A decoder for decoding an image comprising:

(a) a first identifier for identifying processor adapted to identify adjacent regions in said image;

(b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a filter for said processor selectively filtering at least a portion of said the regions proximate a the boundary between said adjacent regions based upon said coding

parameters; wherein said selectively filtering is based upon determining whether at least two of said adjacent regions are predicted based upon two different reference frames.

30. (currently amended) A decoder for decoding an image comprising:

- (a) a first identifier for identifying ~~processor adapted to identify~~ adjacent regions in said image;
- (b) an examiner ~~said processor~~ examining coding parameters for said adjacent regions; and
- (c) a filter for ~~said processor~~ selectively filtering at least a portion of said the regions proximate a ~~the~~ boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering is based upon determining whether at least two of said adjacent regions have an absolute difference of motion vectors that is ~~of said at least two~~ adjacent regions ~~said absolute difference being at least one of~~ greater than or less than a threshold value.

31. (original) The decoder of claim 30 wherein said absolute difference is in a first direction.

32. (original) The decoder of claim 31 wherein said absolute difference is also in a second direction different than said first direction.

33. (currently amended) A decoder for decoding an image comprising:

- (a) a first identifier for identifying ~~processor adapted to identify~~ adjacent regions in said image;
- (b) an examiner for ~~said processor~~ examining coding parameters for said adjacent regions; and
- (c) at least one filter for ~~said processor~~ selectively filtering at least a portion of ~~said the regions~~ proximate a ~~the~~ boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded.

34. (currently amended) A decoder for decoding an image comprising:

- (a) a first identifier for identifying ~~processor adapted to identify~~ adjacent regions in said image;
- (b) an examiner for ~~said processor~~ examining coding parameters for said adjacent regions; and
- (c) a plurality of filters for ~~said processor~~ selectively filtering at least a portion of ~~said the regions~~ proximate a ~~the~~ boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded and a second filter when ~~said~~ at least one of said adjacent regions is encoded with residuals.

35. (currently amended) A decoder for decoding an image comprising:

- (a) a first identifier for identifying ~~processor adapted to identify~~ adjacent regions in said image;

(b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a plurality of filters for said processor selectively filtering at least a portion of said the regions proximate a the boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded, a second filter when ~~said~~ at least one of said adjacent regions is encoded with residuals, and a third filter when ~~said~~ at least two of said adjacent regions are predicted based upon two different reference frames.

36. (currently amended) A decoder for decoding an image comprising:

(a) a first identifier for identifying processor adapted to identify adjacent regions in said image;

(b) an examiner for said processor examining coding parameters for said adjacent regions; and

(c) a plurality of filters for said processor selectively filtering at least a portion of said the regions proximate a the boundary between said adjacent regions based upon said coding parameters; wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded, a second filter when ~~said~~ at least one of said adjacent regions is encoded with residuals, a third filter when ~~said~~ at least two of said adjacent regions are predicted based upon two different reference frames, and said third filter when said at least two of said adjacent regions have an absolute difference of motion vectors that is of said at least two adjacent regions said at least one of a greater than or less than a threshold value.

37. (currently amended) A computer readable medium comprising instructions for performing the acts of :

- (a) ~~(a)~~—identifying adjacent regions in an ~~said~~ image;
- (b) examining coding parameters for said adjacent regions;
- (c) selectively filtering at least a portion of said ~~the~~ regions proximate a ~~the~~ boundary between said adjacent regions based upon said coding parameters;
- (d) identifying similarities between said coding parameters in a luminance channel of said adjacent regions; and
- e) controlling filtering for both the luminance channel and a chrominance channel in said image according to said similarities in the luminance channel.

38. (currently amended) A computer data signal embodied in an electronic transmission, said signal comprising instructions for:

- (a) identifying adjacent regions in an ~~said~~ image;
- (b) examining coding parameters for said adjacent regions;
- (c) selectively filtering at least a portion of said ~~the~~ regions proximate a ~~the~~ boundary between said adjacent regions based upon said coding parameters;
- (d) identifying similarities between said coding parameters in a luminance channel of said adjacent regions; and
- (e) controlling filtering for both the luminance channel and a chrominance channel in said image according to said similarities in the luminance channel.

Amendments to the Drawings

A reference number has been found to be missing in Figure 5 as originally submitted. Accordingly, a revised drawing is submitted herewith. The revised Figure 5 includes the number "71" that was missing in the original submission.